DATA SHEET

Summit X430 Series

HIGHLIGHTS

Summit X430 series switches are based on the revolutionary ExtremeXOS that runs across all of Extreme Networks switches. Powered by ExtremeXOS, Summit X430 switches provide resilient, secure and programmable solution for your network edge application connectivity. Summit X430 switch provides high-density Gigabit Ethernet ports plus dedicated SFP ports in a compact 1RU format, supporting intelligent Layer 2 switching with Layer 2 – Layer 4 traffic classification and QoS on every port for predictable network performance.

KEY FEATURES

- 28 or 52 Gigabit Ethernet ports.
- Line rate performance on all ports.
- BASE-T connectivity to the desktop.
- Dedicated BASE-X SFP ports.
- ExtremeXOS Layer 2 edge feature set.
- Limited Lifetime Warranty.

Overview

The Extreme Networks Summit X430 series Gigabit Ethernet standalone switches provide network edge connectivity for enterprises, branch offices, and small and medium-sized businesses. Summit X430 series are available in 28- or 52-port 10/100/1000 Mbps port models and are ideal for network convergence of Unified Communications, wireless mobility, streaming media and multicast traffic on a single open fabric edge network.

The Summit X430 leverages a compact 1RU and 10-inch deep form factor, along with a low volume operating mode that makes it ideal for open office and wiring closet environments. Summit X430 series switches support up to 4 fixed front panel 100/1000BASE-X (SFP) unpopulated ports that can be utilized for high-speed backbone or link aggregation connections between wiring closets.

Summit X430 series simplifies network operation by using the ExtremeXOS, a modular operating system (OS) that spans all Extreme Networks Summit and BlackDiamond Ethernet switches. Powered by ExtremeXOS, the Summit X430 series enables organizations to build highly resilient and secure edge networks that support high network uptime, simplified management, increased operational efficiency with low total cost of ownership.

The Summit X430 provides exceptional Policy-based QoS with advanced traffic management for converged applications. With eight hardware queues per port to support granular (8kbps-1Mbps) traffic classification, the Summit X430 provides flexible yet reliable solution for converged data, voice & video traffic.

Simplified Network Deployment

- Single streamlined operating system across the entire network.
- Automatic port detection & provisioning using Universal Port capability.
- Widgets & automation scripts to simplify operation & configuration.
- LLDP/LLDP-MED to provide device management

High Performance

- High bandwidth, non-blocking architecture
- Quality of Service (QoS) with advanced traffic management capabilities.
- 28, or 52-port Gigabit Ethernet (GbE) connectivity in a 1RU form factor.
- Line rate ACL for controlling network resource utilization & network protection.
- Less than 5 µs (64-byte) latency.

Comprehensive Security Features

- Identity aware role based policy and host integrity enforcement
- Extensive MAC and IP security functionality to help prevent man-in-the-middle attacks
- Multiple network edge authentication support with multiple endpoints per port

Scalability for Future Network Growth

- Layer 2 MAC addresses support – 16K.
- Total VLANs – 4094.
- Total trunks – 128 load sharing.
- Maximum Layer 2 Multicast groups – 1K.

Programmable Extensibility

- Integrate best-of-breed applications to your network with an open, yet secure XML-based Application Programming Interface (API).
- Integrate Extreme Networks and third-party developed software applications using open standards-based POSIX interfaces.

Enable Network Convergence

- Quality of Service (QoS) with advanced traffic management capabilities for converged applications.
- Traffic policing or rate limiting on ingress, 802.1Q tagging and Diffserv marking, and shaping on egress with eight queues per port provides predictable network performance.

High Availability & Resiliency

- Modular ExtremeXOS operating system
- Ethernet Automatic Protection Switching (EAPS) resiliency protocol.
- Spanning Tree (802.1D), Per VLAN Spanning Tree (PVST+), Rapid Spanning Tree (802.1w) and Multiple Instances of Spanning Tree (802.1s) protocols for Layer 2 resiliency.

Technical Specifications **

PERFORMANCE

SWITCH MODEL	WIRING CLOSET, DISTRIBUTION LAYER, SMALL NETWORK CORE	FRAME FORWARDING RATE
Summit X430-24t	56 Gbps	41.6 Mpps
Summit X430-48t	104 Gbps	77.4 Mpps

WEIGHT AND PHYSICAL DIMENSIONS

SWITCH MODEL	WEIGHT	PHYSICAL DIMENSION
Summit X430-24t	6.0 lb (2.722 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 8.125 inches (20.6 cm)
Summit X430-48t	9.1 lb (4.125 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 10.0 inches (25.4 cm)

A list of supported protocols and standards is available on the Extreme Networks website at:
http://www.extremenetworks.com/products/extreme-xos.aspx

Technical Specifications **

ADDITIONAL PERFORMANCE SPECIFICATIONS

- Latency: <5 µs (64 byte)
- Max Packet Size: 9KB (Jumbo Frame Support)
- Total Trunks: 128 load sharing, members per trunk: 8
- VLANs: 4, 094
- Ingress ACLs: 1,024

Forwarding Tables

- Layer 2/MAC Addresses: 16k
- Layer 2/Multicast Groups: 1k

CUP, Memory

- Single Core CPU, 500 MHz clock
- 256MB DRAM
- 256MB Compact Flash

QoS, Rate Limiting

- Ingress bandwidth meters: 512
- Ingress metering granularity: 8 kbps
- Ingress bandwidth policing/rate limiting per flow/ACL
- Egress QoS queues/port: 8
- Egress bandwidth rate shaping per egress queue and per port
- Egress rate granularity: 64 kbps
- LED Indicators
- Per port status LED including power status
- System Status LEDs: management, fan and power

Operating Conditions Temperature Range

- 0° C to 45° C (32° F to 113° F)
- Humidity: 10% to 93% relative humidity, non-condensing
- Altitude: 0 to 4,000 meters (13,000 feet)
- Shock (Half Sine): 30m/s2 (3 G), 11 ms, 60 shocks
- Random vibration: 3 to 500 Hz at 1.5 G rms

Storage & Transporation Conditions (Packaged)

- Transportation Temperature: -40° C to 70° C (- 40° F to 158° F)
- Storage and Transportation Humidity: 10% to 95% RH
- Packaged Shock (Half Sine): 180 m/s2 (18 G), 6ms, 600 shocks
- Packaged Sine Vibration: 5 – 62 Hz @ Velocity 5mm/s, 62 – 500 Hz @ 0.2 G
- Packaged Random Vibration: 5 – 20 Hz @ 1.0 ASD w/-3dB/ oct. from 20 – 200 Hz 14 drops minon sides & corners @ 39.4" (<15kg box)

EMI/EMC Standards

NORTH AMERICA EMC FOR ITE

- FCC CFR 47 part 15 Class A (U.S.A.)
- ICES-003 Class A (Canada)

EUROPEAN EMC STANDARDS

- EN 55022:2010 Class A
- EN 61000-3-2 2006+ A2: 2008 Class A iHarmonics)
- EN 61000-3-3 2008 (Flicker)
- EN 55024 2010
- ETSI EN 300 386: v1.6.1 2008+A2:2010 (EMC Telecommunications)
- EN 61000-6-4: 2007+A1: 2011 (General Emissions for Industrial, Scientific & Medical)
- EN 61000-6-2:2005 (General Immunity for Industrial, Scientific & Medical)
- EN 50121-4:2006 (Emission and immunity of the signaling for Railway Applications
- 2004/108/EC EMC Directive

INTERNATIONAL EMC CERTIFICATIONS

- CISPR 22:2010, Class A (International Emissions)
- CISPR 24 A2:2010(International Immunity) – IEC/EN 61000-4-2:2008 Electrostatic Discharge, 8kV Contact, 15kV Air, Criteria A –IEC/EN 61000-4-3:2010 Radiated Immunity 20V/m, Criteria A
- IEC/EN 61000-4-4:2012 Transient Burst – Power AC, ± 2.0kV, Criteria A
- Power DC, ± 2.0kV CM, 1kV DM, Criteria A – I/O Cables, ± 2.0kV for all I/O longer than 3m
- IEC 61000-4-5:2005/EN 61000-4-5:2006 Surge

Technical Specifications **

- AC Power, 1/2kV , Criteria A, test up to 2/4kV
- DC Power 1kV DM, 2kV CM, Criteria A
- I/O 1kV L-G, Criteria A
- IEC/EN 61000-4-6:2008 Conducted Immunity, 0.15-80MHz, 10V/m unmod. RMS, Criteria A
- IEC 61000-4-8:2009/EN 61000-4-8:2010 Magnetic Immunity, Not applicable
- IEC/EN 61000-4-11:2004 Power Dips & Interruptions, >30%, 25 periods, Criteria A

International EMC Standards

- VCCI Class A (Japan Emissions)
- RCM (Australia Emissions)
- CCC Mark (China Emissions)
- KCC Mark (Korea Approval)
- GOST-E (Russia)

Telecom Standards

- ETSI EN 300 386: V1.6.1 A2:2010 EMC Telecommunications
- ETSI EN 300 018 (Environmental for Telecommunications)
- MEE 9 compliant
- MEE 14 compliant

IEEE 802.3 Media Access Standards

- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X

Environmental Standards

- EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage
- EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transporation
- EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational
- EN/ETSI 300 753 (1997-10) - Acoustic Noise
- ASTM D3580 Random Vibration Unpackaged 1.5G
- RoHS 6 compliant
- China RoHS compliant
- WEEE Compliant

Warranty

- Ltd. Lifetime with express Advanced Hardware Replacement
- For warranty details, visit: http://www.extremenetworks.com/go/warranty

Safety Standards

- UL 60950-12nd Ed., Lisited Devices (U.S.)
- CSA 22.2 #60950-1-03 wnd Ed. (Canada)
- Complies with FCC 21CFR1040.10 (U.S. Laser Safety)
- CDRH Letter of Approval (U.S. FDA Approval)
- En60950-1:2006+A11+A1+A12+country deviations
- EN60825-1:2007 (Lasers Safety) TUV-RGS Mark by German Notified Body
- 2006/95/EC Low Volatage Directive
- AS/NZX 60950-1 (Australia/New Zealand)

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External Ports

SWITCH MODEL	PORTS
Summit X430-24t	• 24 x 10/100/1000BASE-T (RJ45) • 4 x 100/1000BASE-X (SFP) unpopulated ports • 1 x Serial (console port) and 1 x 10/100BASE-T out-of-band management port
Summit X430-24t	• 28 Gbps
Summit X430-48t	• 48 x 10/100/1000Base-T (RJ45) • 4 x 100/1000BASE-X (SFP) unpopulated ports • 1 x Serial (console port) and 1 x 10/100BASE-T out-of-band management port
Summit X430-48t	• 56 Gbps

Fan Acoustic Noise

SWITCH MODEL	LOW SPEED	HIGH SPEED
	dB(A) Sound Pressure (LpA)	dB(A) Sound Pressure (LpA)
Summit X430-24t	42	55
Summit X430-48t	39	55

Note: Sound pressure is measured in accordance with ISO 7770:2010(E).

Power Specifications

SWITCH MODEL	INPUT POWER AT FULL LOAD	EFFICIENCY
Summit X430-24t	30W	78%
Summit X430-48t	56W	78%

Power Connections

SWITCH MODEL	POWER SUPPLY INPUT SOCKET	POWER CORD INPUT PLUG/INPUT SOCKET	POWER SUPPLY CORD GAUGE	REDUNDANT POWER SUPPLY INPUT SOCKET
Summit X430-24t	IEC 320 C14	IEC 320 C13/C14	Min 18A WG	N/A
Summit X430-48t	IEC 320 C14	IEC 320 C13/C14	Min 18A WG	N/A

Protocols and Standards

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PART NUMBER	NAME	DESCRIPTION
16516	Summit X430-24t	24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, 1 AC PSU, ExtremeXOS L2 Edge license.
16518	Summit X430-48t	48 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, 1 AC PSU, ExtremeXOS L2 Edge license.
16524	Summit X430 Multimedia (AVB) Feature Pack	ExtremeXOS Audio Video Bridging Feature Pack for Summit X430 series switches
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 & 550 meters, LC Connector, Industrial Temp
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, LC Connector, Industrial Temp
10053H	1000BASE-ZX SFP, Hi	1000BASE-ZX SFP, SMF 70 km, LC Connector, Industrial Temp
10056H	1000BASE-BX-D SFP, Hi	1000BASE-BX-D SFP, SMF (1490nm TX/1310nm RX Wavelength), Industrial Temp
10056H	1000BASE-BX-U SFP, Hi	1000BASE-BX-U SFP, SMF (1310nm TX/1490nm RX Wavelength), Industrial Temp
10060	100FX/1000LX SFP	100FX/1000LX SFP, SMF, LC Connector (Requires MCP and 6dB Attenuator for 100FX-MMF Operation)
10063	100FX SFP	100FX SFP, MMF, LC Connector
10064	1000BASE-LX100 SFP	1000BASE-LX100 SFP, Extra Long Distance SMF 100 km/30dB Budget, LC Connector
10065	10/100/1000Base-T SFP	10/100/1000BASE-T SFP module, Category 5 cable 100m link, RJ45-Connector
10067	100BASE-FX SFP	100M SFP, 100FX MMF, (1310nm, 2km multimode transmission) LC connector
10066	100BASE-LX10 SFP	100M SFP, 100LX10 SMF, (1310nm 10km single mode transmission) LC connector
10058	100BASE-BX-D SFP	100M SFP, 100BASE-BX-D, SMF (1550nm TX/1310nm RX wavelength), 100 Mbps
10059	100BASE-BX-U SFP	100M SFP, 100BASE-BX-U, SMF (1310nm TX/1550nm RX wavelength), 100 Mbps bidirectional
10071H	1000BASE-SX SFP 10 Pack, Hi	1000BASE-SX SFP 10 Pack, Industrial Temp
10072H	1000BASE-LX SFP 10 Pack, Hi	1000BASE-LX SFP 10 Pack, Industrial Temp

Extreme networks

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